

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (previously presented): A wireless LAN system comprising:

a base station;

at least one wireless LAN terminal connected to said base station via a wireless LAN;

and

a packet transmission system for transmitting a packet between said base station and said at least one wireless LAN terminal via the wireless LAN, said packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means.

Claim 2 (original): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises arbitrating means for transmitting delay request information for delaying transmission of packets from said base station equipment to said wireless LAN terminal such that the packet transmission does not overlap with other terminals, thereby arbitrating transmission of packets from said wireless LAN terminal to said base station equipment so as not to cause a collision thereof.

Claim 3 (original): The wireless LAN system according to claim 1,

wherein said wireless LAN terminal is associated with a PCF mode, and said base station sets a NAV time and gives timing provided to transmit a capsulated packet, to said wireless LAN terminal.

Claim 4 (original): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises means for adjusting a period for transmitting a capsulated packet according to the number of real time sessions active via said base station.

Claim 5 (original): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises means for collecting CODEC minimal periods corresponding to the number of said wireless LAN terminal set every said base station and adjusting the longest CODEC period of the resultant minimal periods as a transmission period of each capsulated packet.

Claim 6 (original): The wireless LAN system according to claim 1, further comprising:

an IP exchanger having said packet transmission system;

a table in which IP addresses of the wireless LAN terminal connected to every said base station and information indicative of whether said at least one wireless LAN terminal is able to receive capsulated packets are registered; and

means for performing control for allowing said IP exchanger to capsulate prioritized packets based on the information registered in said table and causing said IP exchanger to transmit the capsulated packet, if transmission destination IP addresses of received packets respectively correspond to IP addresses of said wireless LAN terminal and said wireless LAN terminal is able to receive the capsulated packets, and allowing said IP exchanger to transmit the received packets to said base station as they are if not so.

Claim 7 (previously presented): The wireless LAN system according to claim 1,

wherein said packet transmission system further comprises:

arithmetic means for computing use efficiency of a general queue for accumulating the non-prioritized packets, using a predetermined arithmetic expression; and

control means for changing coefficients of the arithmetic expression according to the state of accumulation of the general queue, thereby controlling the value of the use efficiency computed by said arithmetic means.

Claim 8 (original): The wireless LAN system according to claim 7,

wherein said predetermined arithmetic expression is represented as follows:

$$RTT = (\alpha \times K \times Old_RTT) + ((1 - \alpha) \times New_Round_Time_Sample)$$

$$0 \leq \alpha < 1, 0 < K \leq 1$$

where Old_RTT indicates an RTT value up to date, New_Round_Time_Sample indicates the time from the transmission of the latest TCP packet to the reception of an ACK, and K and α indicate coefficients, and

said control means changes the value of the coefficient K according to the state of accumulation of the general queue.

Claims 9-17: (canceled).

Claim 18. (previously presented): A packet transmission system comprising:

sorting means for sorting received packets into prioritized packets and non-prioritized packets;

accumulating means for accumulating the prioritized packets sorted by said sorting means;

capsulating means for capsulating the packets accumulated in said accumulating means; and

transmitting means for transmitting the packet capsulated by said capsulating means, wherein said transmitting means transmits the capsulated packet in matching with a CODEC period, the transmitting means transmitting the capsulated packet in a period T that satisfies $d \leq T \leq C$ where the CODEC period is C and the minimum period necessary for terminal reception is d.

Amendment Under 37 C.F.R. § 1.116
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Claims 19-25: (canceled).